

ABSTRACT OF THE DISCLOSURE

In an image pickup apparatus, a level compensator compensates the level of an image $xL(i, j)$ sensed by an image sensor by exposure for a long time on the basis of the exposure of the image to produce a compensated image $xL'(i, j)$, while another level compensator compensates the level of an image $xS(i, j)$ sensed by the image sensor by exposure for a short time on the basis of the exposure of the image to produce a compensated image $xS'(i, j)$. The image pickup apparatus also includes an image synthesizer to synthesize these compensated images $xL'(i, j)$ and $xS'(i, j)$ to produce a single synthetic image $x(i, j)$. A dynamic range compressor also included in the image pickup apparatus compresses the synthetic image $x(i, j)$ to produce a compressed image $y(i, j)$ for delivery to outside.

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